DOCUMENT RESUME

ED 229 912 EC 151 909

AUTHOR Tindall, Lloyd W.
TITLE Seven Steps to Employment for Learning Disabled Students.
PUB DATE Feb 83
NOTE 32p.; Paper presented at the Annual Convention of the Association for Children and Adults with Learning Disabilities (20th, Washington, DC, February 16-19, 1983).
PUB TYPE Speeches/Conference Papers (150) -- Guides - Non-Classroom Use (055)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Adolescents; Agency Cooperation; Community Resources; Coordination; *Job Placement; Job Skills; *Learning Disabilities; Skill Development; *Teaching Methods; *Vocational Education; *Vocational Evaluation; Young Adults

ABSTRACT

A seven step approach designed to help special and vocational education teachers, parents, and others to develop appropriate vocational/job training programs for learning disabled adolescents and young adults is described. Assessment and evaluation include educational, psychological, and vocational measurement. Provision of support services is explained to include designation of an advocate to coordinate school-community resources and link the student with other services and professionals. Development of interagency linkages with vocational rehabilitation as well as with private industry is considered. Assistance to vocational and other educators focuses on identification and instructional modification (including adapting for learning styles). Skill development information covers functional survival skills, learning how to learn, and error correction. Twelve job placement strategies are suggested, and the importance of planning on lifetime education is noted. (CL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED229912

Seven Steps to Employment for Learning Disabled Students

by

Lloyd W. Tindall, Ph.D.

Vocational Studies Center
University of Wisconsin - Madison

Presented at

The 1983 ACLD International Conference
Washington, D.C.
February 18, 1983

EC151909

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Lloyd W. Tindall

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

For too long a period of time learning disabled people have been underrepresented in vocational education and job training programs in the United States. Learning disabled persons have not shared equally in vocational education programs, workstudy, apprenticeship or in job training. This situation has resulted in higher unemployment, underemployment and in lower wages for the learning disabled population. White, Schumaker, Warner, Alley and Deshler (1980) in a study of LD young adults found that they had lower level jobs and were significantly less satisfied with their employment than were their non-LD peers. Existing vocational education curricula and programs to be developed under the new Job Training and Partnership Act (JTPA) can be valuable avenues to employment for learning disabled persons. Computer assisted instruction is opening up a whole new world of learning potential for the learning disabled student.

Research directed at the needs of learning disabled adolescents and adults has been extremely fruitful during the last five years. The Institute for Research in Learning Disabilities at the University of Kansas has conducted extensive studies with emphasis on Adolescents and Young Adults (Clark, 1981). Deshler, Schumaker, Alley, Warner and Clark (1982) have provided research implications of these studies. Vocational and career assessment for learning disabled students is now at a very usable stage. Brown (1982), Grisafe (1983) and others have laid out viable vocational and career assessment programs for learning disabled and other handicapped students. The potential to assist learning disabled persons to obtain employment and establish meaningful careers has never been more promising. However, the problem which still remains is how to utilize the current research and previously known information in a manner which benefits teachers and learning disabled students. This presentation attempts to outline the concepts of a program designed to assist special and vocational education teachers, parents and others in the development of appropriate vocational and job training programs for learning disabled students. The seven step approach will emphasize the process, teaching methods and modifications which are necessary and which can be applied to current vocational and job training programs.

These steps are interwoven and will necessarily be carried out simultaneously. After the listing of the seven steps, each step will be discussed in detail.

Step One: Assessment and Evaluation

Step Two: Provide Support Services

Step Three: Develop Interagency Linkages

Step Four: Provide Help to Vocational and Other Educators

Step Five: Provide Skill Development for Learning Disabled Students

Step Six: Provide Placement Services

Step Seven: Plan for Lifetime Education

STEP ONE: ASSESSMENT AND EVALUATION

An appropriate assessment and evaluation of learning disabled students can help teachers prepare meaningful Individualized Education Programs for learning disabled students and to develop appropriate curricula and support services. Vocational and career assessment can assist the learning disabled student in determining their interests and abilities as they relate to the world of work. Brown stated that profile scatter on tests like the WISC-R may range from retarded to genius across skills. Behaviors may range from passive helplessness to angry, aggressive acting out to pleasantly appropriate. A learning disabled person's careers and expectations may range from none to professional levels. Learning disabled students are a heterogeneous group and no single test battery can provide the answers to the questions asked by the evaluators.

Hooper (1980) speculated that most workers are fired, not because of their lack of skill or ability to do the job, but due to the inability to deal with authority, get along with others or to acquire socially acceptable skills. LD persons frequently fail to perceive social situations accurately, identify appropriate models, or pick up subtle social clues and non-verbal communications (Cook, 1979). Such behavior often is exhibited on the job and results in serious problems for the LD person. Other authors have addressed the vocational assessment of learning disabled as well as non-LD students, McCray (1982); Kapes and Mastie (1982); Vacc and Bardon (1982). A timely and important manual on vocational assessment of students with special needs was published by the East Texas State University Occupational Curriculum Lab (1982).

The point here is that LD students possess a great many problems which act as barriers to education and employment. Current evaluation

instruments and techniques can identify these situations and provide some answers.

Evaluation Goals and Student Orientation

The goals of the assessment need to be defined prior to the beginning of the assessment process. Is the goal to assist in IEP development, determine cognitive ability, interest, aptitudes, skills or other areas of concern for the LD student, and his or her teachers and parents? The LD student and parents if appropriate need orientation as to the assessment goals, how the assessments will be carried out, how assessments will be scored and interpreted and how results will be used and by whom. You may also want to provide for oral testing and taping the students feedback. Finally, a decision must be made on who will administer the instruments.

The following educational, psychological and vocational evaluation instruments were selected to provide the reader with an idea of the type of materials which might be used to assess an LD student. There are scores of other instruments available. The time elapsed from the first educational and psychological tests to vocational evaluations may cover a several year span or a few months span. The following instruments have been successfully used in assessing both adolescents and adults with learning problems.

Educational and Psychological Evaluations

Evaluators are faced with an enormous number of instruments from which to choose. It is suggested that the reader become familiar with the writings of the previously listed authors and others when conducting evaluations. Persons charged with the evaluation of learning disabled students may be interested in some tests which are commonly used. Dr. Michael Trevitt, Santa Ana College develops an assessment summary from three tests and then makes a decision as to whether more tests are required. These tests are 1) Wechsler Adult Intelligence Scale - Revised (WAIS-R); 2) Bender Motor Gestalt; and 3) The Peabody Individual Achievement Test (PIAT). The WAIS-R measures the intellectual functioning and can be used for a diagnosis of handicap and for placement decisions.

The Bender Motor Gestalt is used to identify an organic impairment such as brain damage. The PIAT is designed to survey the level of educational attainment in basic skills and knowledge and can be used in diagnosis of handicap and in evaluation of progress and placement decisions. In addition to these instruments Pfieffer (1983) would add the Purdue Perceptual Motor Survey to identify occular motor problems, the Keystone Telebinocular and subsequent cards to identify a visual perceptual learning disability, the Illinois Test of Psycholinguistic Abilities to measure visual and auditory reception and association and verbal and manual expression. Pfieffer also recommended the visual perception and motor response parts of the Slingerland Screening Tests.

Another popular and widely used test, the Wechsler Intelligence Scale for Children - Revised (WISC-R), is designed to assess the persons capacity to understand and cope with the world. The WISC-R will also help in IEP development by indicating developmental deficiencies which require remediation. Finally the Woodcock, Johnson Psychoeducational Battery (WJPB) may be given to provide a measurement of reading, written language and math.

Vocational Evaluations

Vocational evaluations can be used to assess vocational interests and abilities. According to Grisafe it is best to assess vocational interests before vocational abilities. This will maximize a students occupational exploration before considering the limiting factor of abilities. Sharing the results of an interest inventory with the learning disabled student will expand the number and diversity of occupations that he or she will want to investigate. Although there are many interest tests, six popular tests suitable for learning disabled students are the 1) California Occupational Preference System (COPS). COPS is designed for senior high and college and provides a systematic measurement of students' interests and strengths in clusters of meaningful related occupations; 2) COPS II Intermediate is a similar instrument designed for elementary grade students or higher grade students; 3) The Ohio Vocational Interest Survey (OVIS) is useful for adolescents and surveys the students' interest in the world of work; 4) Strong Campbell Interest Inventory for higher level occupations; 5) the Department of Labor's

Interest Inventory; and 6) the Wide Range Interest Opinion Test (WRIOT) for non-readers.

Common instruments for assessing abilities and skills are 1) Talent Assessment Program (TAP). TAP measures the individual skills in dexterity and discrimination tasks that the developer has determined to be related to clusters of job; 2) Career Ability Placement Survey (CAPS). CAPS results are summarized in the form of a normed graph which matches the student's abilities to fourteen occupational category scales. CAPS has a fourth grade reading level; and 3) the Program for Assessing Youth Employment Skills (PAYES). PAYES uses a combination of pictures and related questions which are read to the assessee. PAYES assesses work attitudes and cognitive development in relation to occupations and vocational interest.

Work sample evaluation systems are used to evaluate work potential. Three work sample tests which are widely used are mentioned here. Many other commercially developed work samples are available along with hundreds of homemade work samples which are usually developed by local evaluators utilizing local shop and laboratory equipment. The Jewish Employment and Vocational Services (JEVS) produces a work sample system for disabled adolescents and adults which assesses interests, behavior and performance relating to work capabilities. Valpar Corporation builds work samples for use with handicapped students which measures traits related to a person's success in occupations across a number of job families. Singer has built work oriented screening devices designed to help students make vocational choices.

Giving and Interpreting the Assessment Instruments

All of the above mentioned evaluation instruments are used on various populations. They are not specifically designed for learning disabled students. This may mean that tests will have to be given orally which may interfere with the established norms. The list is not an all inclusive, hundreds of other instruments are available. The instruments should not be used in isolation. They measure only a situation at a given place and time. The instruments provide one kind of information. Teachers, psychologists, employers and parents can provide another kind of information. A dialogue session of the persons given the tests needs to be convened to

discuss the results and provide appropriate interpretations. Interpretation is the most important part of the assessment process and the student is the most important person with whom to share the interpretation (Grisafe, 1983). The assessment results need to be communicated to special and vocational educators, job training personnel and parents and others as appropriate in the development of the IEP, modified vocational and job training programs or work study, apprenticeship training, and job placement. The assessment is not an end in itself but a tool to help meet predetermined goals. An appropriate assessment is a real asset to the LD student and to those who will be providing him or her education and training services.

STEP TWO: PROVIDE SUPPORT SERVICE

Supportive services coordinated to provide assistance to the learning disabled student are a must. Similar services need to be provided to both secondary and postsecondary LD students. Supportive services include tutoring, evaluation, counseling, notetaking, tape recorders, testing assistance, textbook study helps, job seeking and job placement helps, talking books and adapted P.E. Other services such as registration assistance, financial aid and campus orientation may need to be provided by postsecondary supportive service units.

Whether at the secondary or postsecondary level, learning disabled students need someone in an advocacy role. This advocate must serve as a bridge between the vocational teachers and the special education teachers. At the postsecondary level the bridge is between the LD student and the vocational teachers. Perhaps a strong supportive role will be played without direct contact with the vocational teachers.

The person filling the advocate role could be from various school based backgrounds such as a learning disabilities coordinator, special education teacher or special needs coordinator. At least two states provide programs which provide a full time position designed to help handicapped students enter and function effectively in the vocational classroom and laboratory. These are the Designated Vocational Instructor Program in Wisconsin and the Related Vocational Instructor Program in Georgia. Whatever the title of the advocate, the position needs to be full time and provide the following services.

1. Provide a link between special education and vocational education and work with the LD student to function effectively in the vocational classroom.
2. Coordinate school and community resources.
3. Promote teacher-student relationships.
4. Provide support to vocational teachers in techniques and strategies for teaching LD students.
5. Deal with the LD students daily problems.
6. Facilitate the utilization of alternative tests and materials.

STEP THREE: DEVELOP INTERAGENCY LINKAGES

Providing the necessary services to help LD students enroll in and function effectively in vocational education and training programs and to achieve job placement and become established in meaningful careers will require the help and cooperation of personnel within the school system and the assistance of various community agencies. Although the person in the advocate position fulfills a vital role there remains a need to further expand the task of providing services to the LD student. Interagency linkage is a tool to be used in gaining the coordination and assistance of others in the community. Vocational rehabilitation counselors have services of value to the LD student. Coordination of the IEP and the Individualized Written Rehabilitation Programs needs to be made where appropriate. Other agencies, employers and businesses have services to offer. The new Job Training and Partnership Act (JTPA) has a 1983-1984 budget of 3.8 billion dollars. Forty percent of the monies must be spent on youth aged 16-21. Ninety percent of the recipients of services must be economically disadvantaged. Many LD persons are in this category. Ten percent of the monies must be spent on specific categorical groups such as handicapped students. This ten percent would be 380 million nationally. Eight percent of the monies are for state education and training grants. The Governors of each state are given the responsibility to distribute these funds. The Private Industry Councils (PIC) within the Service Delivery Areas (SDA) and the State Education Agencies receiving the eight percent funds will be developing JTPA programs. The JTPA identifies 28 uses of fund categories. Some of these categories suitable for LD students are 1) job search assistance;

2) job counseling; 3) remedial education and basic skills training; 4) on the job training; 5) education-to-work transition activities; 6) work experience; 7) vocational exploration; 8) job development; and 9) institutional skill training.

The needs of learning disabled students need to be made known to the PICs. At least 51 percent of the PICs must be made up of persons from the private sector, thus linkages to the PICs is a vital interagency linkage. It may also be possible under certain conditions for secondary schools to set up specific in-school programs for learning disabled students using the eight percent monies going to state education agencies. The JTPA presents a great opportunity for learning disabled students to receive job training skills. However, this opportunity will not be recognized unless teachers, parents and others get involved.

Interagency linkages can be initiated by any number of agencies or individuals seeking cooperation and help in providing services to a target group such as learning disabled students. The Handbook on Developing Effective Linking Strategies by Tindall, Gugerty, Getzel, Salin, Wacker and Crowley (1982) provides a guide in development and implementation of interagency linkages. A specific process for facilitating interagency linkages at the local level in Wisconsin was developed by Tindall and Gugerty (1982).

STEP FOUR: PROVIDE HELP TO VOCATIONAL AND OTHER EDUCATORS

The State of the Art on how to enroll and help learning disabled students participate in vocational education and job training programs has greatly improved in the past three years. Research dealing specifically with the learning problems of adolescents and adults have made major contributions which can be utilized in inservice and preservice of personnel in vocational education and job training programs. This step will attempt to help vocational and regular educators develop vocational programs which will successfully prepare the learning disabled students for employment. Modifications in teaching strategies and techniques are addressed. Step Five on skill development for the LD is directed at the skills which the LD student must accomplish. Many of the Step Five skills can be integrated into the daily vocational instruction. Therefore this step should integrate information from the other steps.

Vocational teachers and others may not know how to identify learning disabled students or the characteristics of learning disabled students. Informal assessment techniques will help sensitize teachers of these characteristics. Three informal assessment instruments are included at the end of this paper. 1) What Is Your Learning Style; 2) Tests for Three Types of Learning; and 3) Learning Disability Assessment Checklist for Teachers.

These checklists can be filled out by teachers or given to students as appropriate. These are informal and not normed and should be used as indicators only. In addition to the information contained in the three checklists, teachers need some of the following information about learning disabilities as discussed by Deshler and others.

1. Over 85 percent of LD adolescents exhibit problems in test taking, study skills and other areas.
2. LD high school students performed more poorly than a high achieving group of students in note taking, monitoring errors, test taking, scanning a textbook passage and listening comprehension.
3. A large number of students in LD programs have significant deficiencies in general academic ability, reading, writing, mathematics and study skills.

Other characteristics may surface such as the discovery of problems in sequencing materials, eye-hand coordination, problems in visual and auditory perception and verbal and manual expression. LD students commonly have problems in assimilating, organizing and transferring information. Other common problems are the reversal of letters and numbers, spacing in written material, illegible handwriting, completing written assignments and reading levels. LD students may show low self esteem, which may manifest itself in poor attendance, and behavioral problems.

After becoming aware of what to look for in LD identification, vocational teachers need strategies and techniques to incorporate into their instruction which will help compensate for the learning disability. Learning disabled students with little if any reading and writing skills need ways to compensate for their deficiencies. Some methods which will assist in the compensation process are:

1. Allow the tape recording of lectures and materials.
2. Let the LD student use a typewriter for papers or responses to the teacher.

3. Utilize word processors. Teachers can type in rough ideas from the LD student and utilize the word processor to develop appropriate paragraphs and papers.
4. Help the students circumvent problems.
5. Provide study guides and advance organizers.
6. Check to see if the students understand directions.
7. Provide frequent feedback to the students.
8. Utilize questioning and discussion and other teaching techniques more often in lieu of the lecture.
9. Develop alternatives to listening by increasing the use of visual and hands on instruction.
10. Provide alternative tests and test feedback modes.
11. Provide computer assisted instruction.
12. Encourage teacher/student interaction.
13. Help the student take the initiative in recognizing the need for assistance and in seeking out assistance.
14. Help the student develop good study habits.
15. Color code the text for the student.
16. Use an alternate form of instruction, Wiseman and Hartwell (1980).
17. Develop a cooperative note taking system in class.

Teaching Modes

Vocational teachers need to teach in the modes which the LD student learns. The learning mode might be determined through informal assessment techniques or the information might be acquired through the formal evaluations administered by the school psychologist. Listed below are some helps for developing instruction in the visual, auditory and tactile modes.

Teach in the Visual Mode

1. Develop mind pictures and vivid images
2. Make notes to self
3. Underline or highlight in color
4. Use charts or graphs
5. Provide actual materials
6. Use pointers, guides
7. Decongest materials

Teach in the Auditory Mode

1. Use audio cassettes
2. Listen to recorded texts
3. Say it, repeat it
4. Try to hear it
5. Eliminate visual interference
6. Avoid complex situations

Teach in the Tactile Mode

1. Provide hands on materials
2. Use body muscles, squeeze ball, toe tap
3. Study position changes, sit, stand, walk
4. Use metronome

Many researchers have addressed the issue of learning style and learning modes. McCarthy (1980) studies learning styles and summarized the learning style characteristics as 1) Innovative Learners; 2) Analytic Learners; 3) Common Sense Learners; and 4) Dynamic Learners. She considered all four styles equally valuable with strengths and weaknesses in each style. The most important learning style is the one in which the student feels most comfortable. McCarthy also conducted research on the functions of the left hemisphere and right hemisphere of the brain. The left brain does verbal things and the right brain does visual-spatial things. Vocational education and job training personnel need to realize the consequences of being a left brain or right brain learner and develop the appropriate strategies for helping a left brain or right brain learner. The goal of the instruction should be to help students develop a whole brain. Instruction which will assist students who are analytic and who are intuitive.

Listening, Thinking, Speaking, Writing, Reading and Math

Although vocational teachers may not think about teaching listening, thinking, speaking, writing, reading and math skills they can make the LD student aware of the necessity of these skills and integrate them into the daily instruction. Helps for improving these skills are summarized below:

Thinking Helps

Tell about a task
Observe and tell
Put together - take apart
Troubleshoot
Plan major events
Plan field trips
Solve a problem

Writing Helps

Write ideas
Draw pictures
Express ideas orally
Get classmates notes
Give oral exams
Develop note taking skill

Math Helps

Learn measurement units
Calculators
Visuals
Tactile materials
Coordinate math and
vocational education

Speaking Helps

Enroll student in speech class
Demonstrate and explain
Think before speaking
Make tapes and listen
Provide separate study area

Reading Helps

Get a diagnosis
Use existing ability
Teach note taking
Audio tapes
Demonstrations
Glossary
Explain
Provide other ways

Listening Helps

Gestures
Voices
Double words
Pauses
Sequences
Major Points
Glossaries
Encourage Questions

Using Muscles to Help Learning

Barsch has worked with LD students in the use of muscles to increase learning. Changing body postures when studying every 15 minutes helps. Memorizing while walking may be difficult but the material is remembered. Squeezing a rubber ball while studying has also proven successful for some students.

Teaching the LD Students that Skills are Transferrable

Skills which are learned in a secondary or postsecondary vocational setting can be transferred to other vocational situations and on to employment environments. The idea that skills needed in the classroom and shop are similar to those needed in the work place may not be readily apparent to the learning disabled student. Therefore, emphasis on the transfer of those skills which accompany the actual vocational skill needs to be made. As an example, a vocational graduate specializing in the repair and maintenance of bicycles could utilize the following skills in a job at a bicycle repair shop.

1. Questioning
2. Listening
3. Writing
4. Generalizing
5. Monitor errors
6. Understand charts, graphs, tasks
7. Read a manual

Computer Assisted Instruction for Learning Disabled Students

Microcomputer assisted instruction for learning disabled students is at a primative stage of development. Relatively few special and vocational educators have incorporated CAI into their curricula for LD students. The CAI which is in use does not necessarily incorporate educational psychology into the format and does not utilize the rapidly advancing capabilities of the equipment.

Computer programmers may not understand educational processes well enough to develop effective software. On the other hand, the majority of learning disability personnel may not be computer literate or capable of programming computers effectively. The lack of training and coordination is compounded by the lack of effective software.

Most CAI authorities recommend purchasing quality computers with sufficient capacity to cover the bulk of the software which is available. The cost of the hardware will be offset by an expanded curriculum, improved academic performance, a more efficient utilization of resources, increased motivation, decrease in LD students failures and a saving of time.

Unfortunately the most popular usages of CAI in the classroom now consists of drill and practice, and tutorial formats. Formats which stress problem solving simulation, provide challenge, curiosity, imagination, high student interaction, and are graphically illustrated are seldom available. The utilization of computers and video disks is an untapped resource at this time.

CAI has some very positive attributes which make it attractive for use with LD students. It can: be a supplement to instruction, improve achievement, be an informal reacter, reduce instructional time, can set a pace, can be superior to a text, provide quick feedback, can tutor,

provide surprise and imagination, quiz and test and will not embarrass the student. Effective CAI programs will: build in student control, individualize, modulize, help master difficult tasks, be multisensory in approach, be at a student level, have supportive materials, use interaction, use dialog devices, provide key word acceptance and give student feedback.

CAI must focus on conceptual teaching and be a part of the curriculum. It is not a panacea and it will not replace the teacher and the human interaction necessary in teaching LD students. Teachers will need to use a year or more in preparation for CAI instruction. This time should be spent on becoming computer literate, in selecting CAI software and in incorporating CAI into the existing curricula. It does not appear practical at this point for the LD teaching personnel to develop their own CAI programs due to the great amount of time needed for this activity. Time can best be spent in selecting from the available software and in making the needs of LD students known to the computer programmers. CAI is a rapidly advancing technology and LD students will benefit if their teachers will prepare now to incorporate CAI into the regular curricula.

STEP FIVE: SKILL DEVELOPMENT FOR LEARNING DISABLED STUDENTS

Part Four addressed the strategies which vocational teachers and others can use in teaching the LD student. Step Five addresses some skills which the LD student must acquire. The best possible job of teaching may not be successful unless the LD student possesses learning and coping skills.

The independence of the LD student must be fostered. They must become more effective learners and function as independent learners to the maximum extent possible. An ability to solve problems, transfer learning, meet recurring demands which require similar response and a general reduction in the level of handicap will greatly increase the LD person's effectiveness as a student or an employee.

Functional Survival Skills

Basic to the education of the learning disabled student are "Survival Skills." These skills are especially important as the LD student seeks employment. Some of these survival skills are 1) how to get on the right

bus; 2) How to read want ads; 3) How to fill out tax forms; 4) How to listen to suggestions and criticisms from teachers and employers; 5) How to use a telephone; 6) How to interview for a job; and 7) How to get along with peers and coworkers.

Teaching the LD Student How to Learn

Recent studies at the Institute for Research in Learning Disabilities (IRLD) at the University of Kansas have explored learning strategy interventions for adolescents (Deshler et. al., 1982). Although IRLD researchers did not stress vocational education, the studies have implications for vocational teachers and vocational curricula. How LD students learn is important to all subject areas. IRLD researchers suggested that if the LD students basic skills level was fourth grade or above, a learning strategy approach could be used. If the LD student was below fourth grade level the approach should be intense compensation skills and intense skill remediation. They further suggested that the less severe LD student may get along with one resource room class per day. However, the more severe LD student needs an intense input over a period of time. IRLD researchers have been able to teach nearly 100 percent of the 70 LD students in their research group a learning strategy.

Nine learning strategies were included in the study. Vocational teachers could teach some of these strategies with a little additional preparation time. The results would be well worth the effort and the non-LD students would also benefit. The other strategies could be taught by the LD advocate or special education teacher. The school's LD support service could work with the vocational teacher in the classroom to help the LD student learn these strategies. The learning strategies are provided below:

1. Word Definition
2. Paraphrasing
3. Self Questioning
4. Multipass - attacking textbook chapters
   (Survey, Size Up, Sort Out)
5. Sentence Writing
6. Paragraph Organization
7. Error Monitoring

8. Listening
9. Note Taking

The IRLD staff at the University of Kansas also developed a method to help teach the strategies. Points One to Nine below outline their method.

1. Determine Current Learning Habits
2. Describe New Learning Strategy
3. Model the Strategy
4. Verbally Rehearse Strategy
5. Practice Strategy (Controlled Reading Level)
6. Give Feedback
7. Practice Strategy (Vocational Materials)
8. Give Feedback
9. Test

Error Correction

Specific details of the strategy for error correction are provided at this point. The error correction strategy works and is a valuable tool for learning disabled vocational students to acquire. There are four tasks to be done to initiate the error correction strategy (Schumaker, 1981):

1. Read each sentence separately
2. Ask COPS questions
3. Circle errors, correct error
4. Ask for help

The COPS questions are then asked and the resulting activities carried out. The four COPS questions follow.

C Capitalize first word, proper names

O Overall appearance (spacing, legibility, indentation, neatness, complete sentences)

P Punctuation (commas, periods, ?)

S Spelling (are all words correctly spelled?)

Six additional steps were devised by the IRLD staff to round out the error monitoring strategy. They are:

1. Use every other line (rough draft)
2. Ask COPS questions
3. Circle errors, add correction
4. Ask for help
5. Make final draft
6. Re read final

This error correction strategy has proven successful and could be readily incorporated into the vocational curriculum. This and other learning strategies would be an asset to the LD student. These strategies would promote independence and would be transferrable to other subjects and life situations.

STEP SIX: PROVIDE PLACEMENT SERVICES

The ultimate goal of vocational education and job training for the LD student at both the secondary and postsecondary levels is the achievement of employment and the involvement in a meaningful career. Assuming that we are successful in the vocational education and training of the LD student the next step is employment. Hopefully the LD student would be familiar with many jobs and career areas so that he or she could make the appropriate employment decisions. He or she should have participated in a variety of pre-employment activities such as job exploration, work study, on the job training, apprenticeship training, or job shadowing. Education to work activities such as role playing in interviewing, filling out job applications, job seeking skills, peer and employer relationships and how to keep a job should have been experienced.

There are volumes of materials written on job placement strategies and techniques. However, it is sometimes best to consider the experience of persons who have been successful over a period of many years in placing LD students. Thanos (1982) provided a list of twelve activities and policies which he used successfully for several years in the job placement of LD students.

1. Know the student well. You will be working closely with employers and must know the product which you are selling, both for the employer's benefit and for the LD student's benefit.
2. Help the LD student explore jobs. This may involve the joint reading of want ads, help in writing letters and acquiring job specific information.

3. Visit the work area. See first hand what tasks are involved and get a feeling for the work climate. Note any positive or negative factors.

4. Talk with employers and employees. Get a view from both sides of the job. Make evaluations of the job and whether or not your client would be welcome, could succeed or advance.

5. Do not stereotype the LD student. No two LD students are alike. Convey this to the employer and be specific about each LD student.

6. Be available to the employer. Let the employer know that you can help resolve conflicts and can provide advice on how the LD student will function effectively on the job.

7. Be honest with employers. Provide the employer with an accurate representation of the LD person's strengths, competencies and weaknesses if appropriate. Misrepresentations will close doors in a hurry.

8. Provide steady, persistant, honest, cooperative hard work over time. Good placement counselors really like their jobs, the employers they work with and the students they place.

9. Remember that a high turnover rate of job placement counselors may be detrimental to the cause. LD persons are especially vulnerable to counselor turnover.

10. Help the LD person to enjoy and anticipate success. Set short term goal to anticipate such as first paycheck, first raise, first month, first job evaluation.

11. Help the LD person to establish a meaningful career. Placement is more than just helping the LD person get a job. LD persons need advice on how to advance, when to change jobs, etc.

12. Provide assistance over a long period of time. Make yourself available to the person for the same length of time you hold your own job or on your next job if you are in the same geographical area.

STEP SEVEN: PLAN FOR LIFETIME EDUCATION

The job situation in the United States is under constant change. Jobs become obsolete and economic conditions create layoffs. The new technology and high technology occupations may require additional education and training. Education and updated or new training will be required for job advancement and reemployment. Failure to acquire more education may result in unemployment, underemployment and lower wages.

Learning disabled persons must acquire the philosophy that continuous education is a way of life. The average age of persons in postsecondary vocational schools and other job training institutions is rising. To help the LD person cope with this situation, they will need skills on how to identify appropriate next steps. Skills in how to seek out, enroll in or explore new jobs and new educational opportunities will be important. Knowledge that postsecondary schools, employment offices and other services are available to all persons will provide a starting place when jobs fail and economic conditions create unemployment situations. It is therefore necessary that any stigma about continued education be removed.

Summary

Education and training for learning disabled students will require much hard work and planning on the part of both special and vocational educators and other members of the school and business community. We need to start with the assessment and evaluation of the LD student and then develop the appropriate support services and interagency linkages to assist in the delivery of the vocational education and training.

The state of the art on how to teach LD students has made a rapid advancement during the last five years. The strategies and techniques on how to teach adolescents and adults is becoming more clear. Vocational and job training teachers need to become aware of these strategies and incorporate them into the curricula. It is apparent that the best job of teaching will not create successful learners. LD students must obtain skills to help them become effective and independent learners.

After the appropriate employment skills have been acquired, LDs need specific help in locating employment and maintaining employment which leads to meaningful careers. Finally LDs need to realize that education is a lifetime task and that there will be a need for future and ongoing education.

Barsch, J. Learning with your muscles. Ventura, CA: Ventura College, 1982.

Bender, L. Bender-Gestalt. Visual Motor Gestalt Test. Grune and Stratton, c/o Academic Press, 111 5th Ave., 12th Floor, New York, NY 10003.

Brown, L.S. Vocational Assessment for Learning Disabled Students in Hohenshil, T.H. and Anderson, W.T. Secondary school psychological services: Focus on vocational assessment procedures for handicapped students. Blackburg, VA Conference proceedings, 1982.

Career Ability Placement Survey, Edits Publishers, Box 7234, San Diego, CA 92107.

Clark, F.L. Major research findings of the University of Kansas Institute for Research in Learning Disabilities. The University of Kansas, Institute for Research in Learning Disabilities, Lawrence, KS. No. 31, Oct. 1981.

Congressional Record, House, Conference Report on 52036, p. 13. September 28, 1982.

Cook, L.D. The adolescent with a learning disability: A developmental perspective. Adolescence, 1979. Vol. 14, 697-707.

Department of Labor, Interest Inventory, U.S. Government Printing Office, Washington, D.C., 1979.

Deshler, D., Schumaker, J.B., Alley, G.R., Warner, M.M., and Clark, F.L. Learning disabilities in adolescent and young adult populations: Research implications. Focus on Exceptional Children. Vol. 5, No. 1, Sept. 1982.

Dunn, L.M. and Markwardt, F.C. Peabody Individual Achievement Test. Psychological Corporation, 757 Third Ave., New York, NY 10017, 1970.

Educational Industrial Testing Service, California Occupational Preference System, P.O. Box 7234, San Diego, CA.

Grisafe, J.P. Vocational assessment handbook. Office of Riverside County Superintendent of Schools, Riverside, CA, January, 1983.

Hooper, P.G. Guidance and counseling, potential impact on youth employment, Journal of Career Education, 1980, Vol. 6, 270-287.

Kapes, J.T. and Mastie, M.M. A counselor's guide to vocational guidance instruments. National Guidance Association, 1982.

Keystone Telebinocular, Keystone View Co., 2212 East 12th St., Davenport, IA 52803.

Kirk, S.A., McCarthy, J.J. and Kirk, W.D. Illinois Test of Psycholinguistic Abilities, Revised. Western Psychological Services, 12031 Wilshire Blvd., Los Angeles, CA 90025

McCarthy, B. The 4MAT system, teaching learning styles with right/left mode techniques. Excel, Inc., Oak Brook, IL, 1980.

McCray, P.M. Vocational evaluation and assessment in school settings. University of Wisconsin-Stout, Vocational Rehabilitation Institute, Research and Training Center, Menomonie, WI, 1982.

Ohio Vocational Interest Survey, Psychological Corporation, 757 Third Ave., New York, NY 10017.

Program for Assessing Youth Employability Skills, Educational Testing Services, Princeton, NJ 08540.

Roach, E.G. and Kephart, N.C. Purdue Perceptual Motor Survey. Charles E. Merrill Publishing Co., 1300 Alun Creek Drive, Columbus, OH 43216.

Schumaker, J.B., Deshler, D.D., Denton, P., Alley, G.R., Clark, F.L., and Warner, M.M. Multipass: A learning strategy for improving reading comprehension. The University of Kansas, Institute for Research in Learning Disabilities, Lawrence, KS, 1981.

Schumaker, J.B., Deshler, D.D., Nolan, S., Clark, F.L., Alley, G.R., and Warner, M.M. Error monitoring: A learning strategy for improving academic performance of LD adolescents. The University of Kansas, Institute for Research in Learning Disabilities, Lawrence, KS, 1981.

Singer/Career Systems, 1333 Lawrence Expressway, Bldg. 100, Suite 109, Santa Clara, CA 95051.

Slingerland, B.H. Slingerland Screening Tests for Identifying Children with Specific Language Disability. Western Psychological Services, 12031 Wilshire Blvd., Los Angeles, CA 90025.

Strong-Campbell Interest Inventory, Stanford University Press, Stanford, CA, 1977.

Talent Assessment Program, Talent Assessment, Inc., P.O. Box 5087, Jacksonville, FL 32207.

Texas Education Agency, Department of Occupational Education and Technology Research Coordinating Unit. Vocational assessment of students with special needs, an implementation manual. Austin, TX, 1982.

Thanos, G. Personal Communication, Ventura College, Ventura, CA, 1982.

Tindall, L.W. and Gugerty, J. Improving vocational education and employment for handicapped people: A process for facilitating interagency linkages in Wisconsin. University of Wisconsin-Madison, Vocational Studies Center, Madison, WI, 1982.

Tindall, L.W., Gugerty, J., Getzel, E.E., Salin, J., Wacker, G.B., and Crowley, C.B. Vocational education models for linking agencies serving the handicapped: Handbook on developing effective linkages strategies. University of Wisconsin-Madison, Vocational Studies Center, Madison, WI, 1982.

Trevitt, M. Santa Ana College, Personal Communication, Santa Ana, CA, 1982.

Vacc, N.A. and Bardon, J.I. Assessment and appraisal: Issues, practices and programs, a special journal issue of measurement and evaluation in guidance. American Personnel and Guidance Association, Falls Church, VA, 1982.

Valpar Component Work Samples, Valpar Corporation, 3801 E. 34th Street, Tucson, AZ 85721.

Vocational Research Institute, Jewish Employment and Vocational Service, 1700 Samson St., 9th Floor, Philadelphia, PA 19103, 1963.

Warner, M.M. and Alley, G.R. Teaching learning disabled junior high students to use visual imagery as a strategy for facilitating recall of reading passages. The University of Kansas, Institute for Research in Learning Disabilities, Lawrence, KS, 1981.

Wechsler, D. Wechsler Adult Intelligence Scale, Revised. Psychological Corporation, 757 Third Ave., New York, NY 10017, 1955.

Weschler, D. Weschler Intelligence Scale for Children, Revised. Psychological Corporation, 757 Third Ave., New York, NY 10017, 1974.

White, W.J., Schumaker, J.B., Warner, M.M., Alley, G.R., and Deshler, D.D. The current status of young adults identified as learning disabled during their school career. University of Kansas, Institute for Research in Learning Disabilities, Lawrence, KS, 1981.

Wide Range Interest Opinion Test, Jastak Assessment Systems, Inc., 1526 Gilpin Ave., Wilmington, DE 19806.

Wiseman, D.E., and Hartwell, L.K. Parallel alternate curriculum, a planning model for secondary level instructors. Arizona State University, Department of Special Education, Tempe, AZ, 1980.

Woodcock, R.W. and Johnson, M.B. Woodcock-Johnson Psycho-educational Battery Teaching Resources Corp., 50 Pond Park Road, Hingham, MA 02043.

24

WHAT IS YOUR LEARNING STYLE?

List A

_____ 1. People say you have terrible handwriting.

_____ 2. You don't like silent filmstrips, pantomimes, or charades.

_____ 3. You would rather perform (or listen to) music than do (or view) art, and you would rather listen to a tape than look at a filmstrip.

_____ 4. You sometimes leave out words when writing, or sometimes you get words or letters backwards.

_____ 5. You can spell out loud better than when you have to write it down.

_____ 6. You remember things you talk about in class much better than things you have to read.

_____ 7. You dislike copying material from the blackboard or bulletin boards.

_____ 8. You like jokes or riddles better than cartoons or crossword puzzles.

_____ 9. You like games with lots of action or noise better than checkers or most other board games.

_____ 10. You understand better when you read aloud.

_____ 11. Sometimes you make math mistakes because you don't notice the sign or because you read the numbers or directions wrong.

_____ 12. It seems like you are the last one to notice something new - e.g. that the classroom was painted or that there is a new bulletin board display.

_____ 13. Map activities are just not your thing.

_____ 14. You must struggle to keep neat notes and records.

_____ 15. You use your fingers as a pointer when you read.

_____ 16. You frequently hum or whistle to yourself when you are working.

_____ 17. Sometimes your eyes just "bother" you, but your eye tests come out all right, or you have glasses which your eye doctor says are just right for you.

_____ 18. You hate to read from ditto sheets, especially blotty ones.

_____ 19. "Matching test" questions are a problem to sort out (over and above not knowing some of the answers.)

_____ 20. Sometimes when you read you mix up words that look similar (pill-pull, bale-hale).

_____ SCORE: NUMBER ANSWERED YES

List B

_____ 1. It seems like you always have to ask somebody to repeat what he or she just said.

_____ 2. Sometimes you may find yourself "tuned out" - staring out the window maybe when you were really trying to pay attention to something.

_____ 3. Often you know what you want to say, but you just can't think of the words. Sometimes you may even be accused of "talking with your hands", or calling something a "thingamajig" or a "whatyacallit."

_____ 4. You have been in speech therapy at some time previously.

_____ 5. You may have trouble understanding a person who is talking to you when you are unable to watch the persons face while he or she is speaking.

_____ 6. You would rather receive directions in a demonstration format than in spoken form.

_____ 7. When you watch TV or listen to the radio, someone is always asking you to turn it down.

_____ 8. Your family says that you say, "huh?", too much.

_____ 9. You would rather demonstrate how to do something than make a speech.

_____ 10. Spoken words that sound similar (bell, bill, pin or pen) give you trouble. Sometimes you can't tell them apart.

_____ 11. You have trouble remembering things unless you write them down.

_____ 12. You like board games such as checkers better than listening games.

_____ 13. Sometimes you make mistakes in speaking (like saying "he got expended from school").

_____ 14. You like art work better than music.

_____ 15. You have to go over most of the alphabet to remember whether, e,g,m comes before r.

_____ 16. You like it better when someone shows you what to do, rather than just telling you.

_____ 17. You can do a lot of things that are hard to explain with words - like fixing machines or doing macrame.

_____ 18. You usually answer questions with "yes" or "no" rather than with complete sentences.

_____ 19. Often you forget to give verbally received messages (such as telephone messages) to people unless you write them.

_____ 20. You are always drawing little pictures on the edges of your papers, or doodling on scratch paper.

___ SCORE: NUMBER ANSWERED YES

If list A is very much higher than list B, the person in question could be considered an auditory learner. If list B is much higher, it indicates that the person in question might be considered a visual learner. If both lists are high, this persons best learning mode would probably be touching and doing.

The above material is drawn from Hayes, Marnell L. The Tune-in, Turned-on Book About Learning Problems. San Rafael, California: Academic Therapy Publications, 1974.

Tests for Three Types of Learning

Test Ground Rules

To give the test, you need:

1. A group of not more than 15 students as it is difficult to observe more than that at one time.
2. A list of the students' names which you can mark as you observe their reactions.
   V = Visual Learner
   A = Audio Learner
   K = Kinesthetic Learner

Reactions to watch for:

Visual Learners will usually close their eyes or look at the ceiling as they try to recall a visual picture.

Audio Learners will move their lips or whisper as they try to memorize.

Kinesthetic Learners will use their fingers to count off items or write in the air.

Conducting the Test

Start by telling your students that you are going to give them a test to determine what kind of learners they are: VISUAL, AUDIO, or KINESTHETIC.

This test consists of pretending that the students are going to the tool-room to get some tools for you. (The list should either include items appropriate to your class, or should be general, such as items to pick up at a grocery store.) First, you will write the list on the board, allowing the students to watch you, but they must not copy it. Next, you will give them the list orally. You will not write it and neither must they. Then, you will dictate the list to them orally and they will write it down.

After each presentation, you will ask your students to repeat the list to you if they wish. If a student is not able to repeat the list, tell him or her not to worry. The response to your request should be voluntary and the list does not have to be given back in order.

The specific test or tests in which the student has the highest recall is a reinforcement of his native way of learning. However, the symptoms are the prime indication.

First Presentation — List I

1. Write the list on the board while the students are watching. Do not let them write. — Hammer

First Presentation

2. Allow students to view the list for approximately one minute while observing their reactions. Mark the symptoms after the students' names.

Symptoms:

VISUAL LEARNERS - Close their eyes or look at the ceiling. (V after name)

AUDIO LEARNERS - Move their lips or whisper, (A after name)

KINESTHETIC LEARNERS - Count the items on their fingers or write in the air. (K after name)

3. Erase the list.

4. Ask, "Who would like to repeat the items to me?"

5. Observe that the Visual Learners will volunteer first.

6. Call on them to recite ORALLY, one at a time, (Note that after a few students have recited, a few more timid hands will go up. These usually are AUDIO LEARNERS who have learned the list, not from seeing it, but from hearing the other students say the items.

7. As you notice a student's symptoms, make "V", "A" or "K" after the student's name.

List I

Pliers

Crescent Wrench

Paint Brush

Screwdriver

Welding Rods

Level

Battery Tester

Second Presentation

1. Dictate the list ORALLY (no writing by either teacher or students). Repeat the dictation a second time, pausing for a moment after each item.

2. OBSERVE that the VISUAL LEARNERS will close their eyes to try to SEE the items. The AUDIO LEARNERS will whisper each item as you dictate it. The KINESTHETIC LEARNERS will use their hands to mark off the number of items or will write in the air.

3. Ask, "Who would like to repeat the list?"

4. The audio learners will be the most eager to respond, although other students will try to repeat the items you have dictated.

5. Make appropriate notation of "V", "A" or "K" after the students' names as you notice their reactions.

List II

Tape Measure

Square

Screwdriver

Chalk Line

Vise Grip

Level

Hammer

Pliers

Third Presentation

1. Tell the students to have pencil and paper ready to WRITE the list as you dictate it ORALLY. Tell them you will not count spelling. In fact, spell the words as you dictate.

2. After you have finished dictating the list, tell the students to rewrite the list, and to look at the one they have written from your dictation.

3. When they have finished rewriting the list, tell them to turn the paper over and WRITE THE LIST FROM MEMORY.

4. After they have finished, check to see which students have been able to repeat the list wholly or in part.

5. Notice that students who are unsuccessful in either the first or second presentation of the test are frequently the first ones finished.

List III

Chalk Line

Plumb Bob

Hand Saw

Tape Measure

Welding Rods

Power Drill

Pliers

Square

(The test may be repeated using numbers. Most students have a different form of recall for numbers than they have for words.)

Adapted from: Baxter, Wynn. Magnetic patterns of the English Language. Arlington, Virginia: Virtitas Publications, 1975.

Learning Disability Assessment Checklist for Teachers

Note the frequency with which students exhibit the following behaviors. Consistent behaviors such as these may indicate the presence of a learning disability.

Reading

1. Reading is mechanical, without expression
2. Guesses words based upon a few letters (the first, last letters)
3. Reads unevenly
4. Reads past mistakes without attempting to correct errors regardless of meaning
5. Reads very slowly, sounding out words while reading
6. Repeats words, loses place, goes back to find place
7. Unable to blend sounds together to get words
8. Moves lips during silent reading (subvocalizes)
9. Does not seem to understand what he or she has read, despite ability to read fluently
10. Comprehends what is read to him or her better than what he or she reads by self
11. Does not read willingly

Writing

1. Does not organize ideas into meaningful paragraphs
2. Punctuates incorrectly

Writing (cont.)

3. Does not write complete sentences
4. Reverses letters in a sentence; e.g., calm-clam; girl-gril; dirt-drit; saw-was
5. Spells phonetically and writes nonphonetic words incorrectly; e.g., thier, howse, eaite, etc.
6. Erases, crosses out, messes up work with scribbling when making corrections in written work
7. Does not write within lines on paper or indent paragraphs; follows incorrect form for writing
8. Written work deteriorates when under pressure of time testing or when work is long or demanding
9. Work shows poor placement on a page. Work (especially math or drawings) is spaced erratically on the paper
10. Avoids written work though highly verbal in class
11. Oral performance far exceeds written work

Speaking

1. Does not articulate clearly and understandably
2. Does not pronounce ending sounds in words correctly

- OVER -

Speaking (cont.)

3. Has tendency to confuse words he or she hears: 'profane' becomes 'propane', 'animal' becomes 'aminal', 'very' becomes 'revy'

4. Speaks quickly and nervously; thus is hard to follow or understand at times

5. Answers questions tangentially and has difficulty in getting to the point

6. Has difficulty finding the correct words when speaking

7. Interrupts self when speaking; distracts self and changes the subject; is fragmented and disorganized

Listening

1. Does not seem to listen to instructions

2. Does not attend to what is happening in class

3. Seems to misunderstand language

Math

1. Does not understand place value of numbers

2. Has difficulty in spatial concepts and measurement

3. Does not understand borrowing and carrying in math

4. Cannot remember math facts (addition and multiplication) and recall them automatically

5. Has difficulty with math problems that are written out in sentence form

Attitude

1. Does the student follow through on assigned work, or become disorganized and fail to complete assignments?

2. Does the learner often appear lethargic or apathetic, yawn, appear bored and without energy?

3. Does the student seem to feel inadequate or negative, and put self down?

4. Does he or she tend to be a loner?

5. Does the student handle frustration by acting out agressively?

6. Does the learner shy away from anything new academically, socially, athletically, for fear of failure?

7. Does the student have a shorter attention span than most of his or her peers?

8. Does the student claim not to need help? Avoid coming for help after school or during tutorials, for fear of appearing "stupid" or a "dummy"?

Adapted from Weiss, Helen Ginandes and Weiss, Martin, S. A survival manual; case studies and suggestions for the learning disabled teenager. Great Barington, Massachusetts, Treehouse Associates, 1976, pp. 68-71.